

Work Order ID 159893

Wednesday, April 19, 2017 1:39:59 PM

159893

Page 1

Item ID: 647.7914

Revision ID:

Item Name: Bracket

Start Date: 4/23/2017 Start Qty: 8.00

Required Date: 5/19/2017 Req'd Qty: 8.00

Reference: (P.A.)SCHEDULED/S

Approvals:

Process Plan:

9-69

Date:

APR 20 2017

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

N900040100

Setup Start

NS1

Stop

NS2

Cust Item ID:

Customer:

Run Start

NR1

Stop

NR2

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr
647.7900	N/C

110

0.00

110

Waterjet

FLOW CNC Waterjet

Memo

1-Cut as per Dwg

Dwg Rev: N/C

Prog Rev: N/C

2-Deburr if necessary

0.39

(12)

04/17/05/15

120

QC2- Inspect parts off machine FAI/FAIB

0.00

120

QC

Quality Control

Memo

0.00

(12)

04/17/05/15

DQA: _____ Date: _____

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : _____					

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159893

Page 2

Wednesday, April 19, 2017 1:39:59 PM

Item ID: 647.7914 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Bracket
Start Date: 4/23/2017 Start Qty: 8.00 ***8*** Cust Item ID:
Required Date: 5/19/2017 Req'd Qty: 8.00 ***8*** Customer:
Reference: (P.A.)SCHEDULED/S

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130 *130* QC Quality Control	QC8- Inspect parts - second check Memo	0.00 0.00				11			DAS 38 9-89 P.T.O. MAY 17 2017
140 *140* Brake NC Brake NC	Form as per dwg Memo	0.00 0.89			DAS 30 9-89	11			MAY 06 2017
150 *150* QC Quality Control	QC5- Inspect part completeness to step on W/O Memo	0.00 0.00				11			DAS 38 9-89 JUN 06 2017

DQA: _____ Date: _____

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: _____ Date: _____

Work Order update only ☒

Work Order: <u>647.7914</u> Part No. <u>159893</u> NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS <table style="width:100%;"> <tr> <td>Skid-tube ☐</td> <td>Cross tube ☐</td> <td>Water Jet ☐</td> <td>Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>						Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐																																															
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Date : <u>17-05-17</u>		Step #: <u>130</u>		QTY Effective : <u>1</u>		MRB (QSI042) Approval																																																																	
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Page 3

Wednesday, April 19, 2017 1:39:59 PM

Item ID: 647.7914 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Bracket
 Start Date: 4/23/2017 Start Qty: 8.00 ***8*** Cust Item ID:
 Required Date: 5/19/2017 Req'd Qty: 8.00 ***8*** Customer:
 Reference: (P.A.)SCHEDULED/S

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
160 *160* Outsource4 Outsource process - Anodize	Outsource process-Anodize per QSI017 4.1.10.1 Memo: ISSUE P/O: <u>36583</u> HARD ANODIZE, COLOR BLACK AS PER DWG.(SEE NOTE 2)	0.00 0.00				<u>11</u>	<u>JUN 06 2017</u>		DAS 33 9:00
170 *170* Packaging Packaging	Receive & Inspect for Damage & Mat'l Certs Memo	0.00 0.00							11X 80176-16
180 *180* QC Quality Control	QC5- Inspect part completeness to step on W/O Memo 2.8 mils thickness primer	0.00 0.00				<u>11</u>			DAS 38 9:00 JUN 19 2017

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	

Root Cause				FAULT CATEGORY			
Environment ☐	☐ No Re-verification	Pressure/Forced ☐		Temperature/Cure ☐		Power Loss/Surge ☐	
Design ☐	☐ Operator	Bending ☐		Set-up ☐		Folio/Program ☐	
Doc/Data ☐	☐ Offset/Setup	Centre Not Concentric ☐		BOM/Route ☐		Grain ☐	
Equip/Tooling ☐	☐ Supplier	Cracks ☐		Broken/Damage/Defect ☐		Weld ☐	
Handling/Pre ☐	☐ Training	Crimp/Kink/Ripple/Wave ☐		Inspection Incomplete/Unqualified ☐		Wrong Stock Pulled ☐	
Material ☐	☐ Use for Testing	Cuffs ☐		Contamination ☐		Out of Sequence ☐	
Internal Transport ☐	☐ Poor Information	Crushing ☐		Countersink ☐		Off-set ☐	
Tribal Knowledge ☐	☐ Rushing	Heat Treat ☐		Cut Too Short ☐		Mislabeled ☐	
LOA ☐	☐ Product Improvement	Wave/Twist in Tube ☐		Instructions Incomplete/Unclear ☐		Fit/Function ☐	
Substation ☐	☐ Process Improvement	Marks/Chatter ☐		Drill Holes ☐		Misaligned/off center ☐	
Past Expiry Date ☐	☐ Manufacturing Process	OTHER : _____					
Misidentified ☐	☐ Past Due						

Work Order ID 159893

159893

Page 4

Wednesday, April 19, 2017 1:39:59 PM

Item ID: 647.7914 Accept *N900040100* Setup Start *NS1*
Revision ID: Stop *NS2*
Item Name: Bracket
Start Date: 4/23/2017 Start Qty: 8.00 *8* Cust Item ID:
Required Date: 5/19/2017 Req'd Qty: 8.00 *8* Customer:
Reference: (P.A.)SCHEDULED/S

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start *NR1*
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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190 *190* SprayPaint Spray Painting	Memo PRIME IAW MIL-P-23377J TYPE1 CLASS N AS PER DWG. (SEE NOTE 2) CARDINAL 4860-50 PRIMER BATCH: _____	0.00							
--	---	------	--	--	--	--	--	--	--

200 *200* QC Quality Control	QC14- Inspect Spray Paint Memo	0.00 0.00				11			
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210 *210* Packaging Packaging	Identify as per dwg & Stock Location Memo ***IDENTIFY AS PER APICAL MPP-120 BY STAMPING P# AND REV***	0.00 0.00							
--	---	--------------	--	--	--	--	--	--	--

DAS
38
9-82

JUN 23 2017

11x8017-16-22

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
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Root Cause		FAULT CATEGORY							
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐	OTHER :			

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Page 5

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Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
220	QC21 - Final Inspection - Work Order Release	0.00							
220									
QC	Memo	0.00							
Quality Control									


JUN 23 2017

DQA: _____ Date: _____

**WORK ORDER NON-CONFORMANCE / UPDATE**

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Date :	Step #:	QTY Effective :		MRB (QS1042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____			
Misidentified ☐	Past Due ☐				

Picklist Print

Wednesday, April 19, 2017 1:39:59 PM

Page 1

Work Order ID: 159893

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Parent Item: 647.7914

647 7914

Parent Item Name: Bracket

Start Date: 4/23/2017

Required Date: 5/19/2017

Start Qty: 8.00

Required Qty: 8.00

Comments: IPP REV:A 12.10.03 NEW ISSUE DD VERF:JFS

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M2024T3S.090		Purchased		No		110	sf	48.0700	0.084	0.707369			

M2024T3S 090

2024-T3 .090 sheet

**

on 17/05/15

Location

Loc Qty

Loc Code

MAT021

48.07

123287

14.17

m130387

33.9

1.2

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

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Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QS1042) Approval 		
Description Work Order Deviation				Disposition					
				Completed By 					
				Lead hand / Supervisor Approval Verification 					
				QC / QA Coordinator Approval 					

Root Cause				FAULT CATEGORY			
Environment ☐	☐	No Re-verification	☐	Pressure/Forced	☐	Temperature/Cure	☐
Design ☐	☐	Operator	☐	Bending	☐	Set-up	☐
Doc/Data ☐	☐	Offset/Setup	☐	Centre Not Concentric	☐	BOM/Route	☐
Equip/Tooling ☐	☐	Supplier	☐	Cracks	☐	Broken/Damage/Defect	☐
Handling/Pre ☐	☐	Training	☐	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified	☐
Material ☐	☐	Use for Testing	☐	Cuffs	☐	Contamination	☐
Internal Transport ☐	☐	Poor Information	☐	Crushing	☐	Countersink	☐
Tribal Knowledge ☐	☐	Rushing	☐	Heat Treat	☐	Cut Too Short	☐
LOA ☐	☐	Product Improvement	☐	Wave/Twist in Tube	☐	Instructions Incomplete/Unclear	☐
Substation ☐	☐	Process Improvement	☐	Marks/Chatter	☐	Drill Holes	☐
Past Expiry Date ☐	☐	Manufacturing Process	☐	OTHER : 			
Misidentified ☐	☐	Past Due	☐				

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THE WRITTEN PERMISSION OF APICAL INDUSTRIES IS PROHIBITED.

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
LAST PROTOTYPE REVISION- PRT			N/C
N/C	INITIAL RELEASE	11-22-07	P. BRAYO

NOTES:

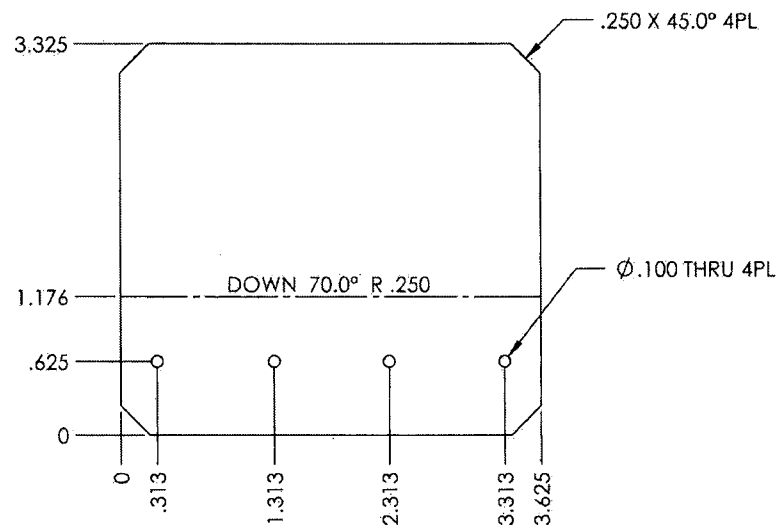
- 1 MATERIAL: ALUMINUM 2024-T3 PER AMS-QQ-A-250/4
- 2 FINISH: ANODIZE PER MIL STD-A-8625, TYPE III, CLASS 2, COLOR BLACK;
CARDINAL 4860-50 PRETREATMENT PRIMER
PRIME IAW MIL-P-23377J TYPE I CLASS N
3. DEBURR AND BREAK ALL SHARP EDGES
4. IDENTIFY IAW MPP-120

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 159893 MJS

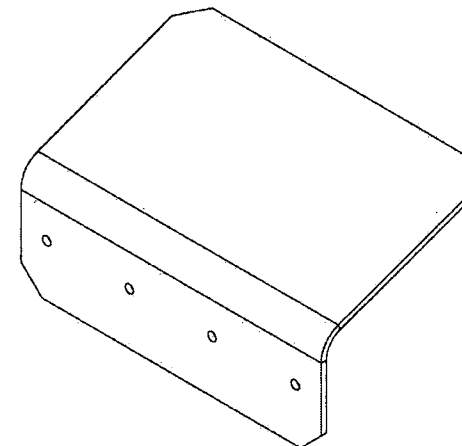
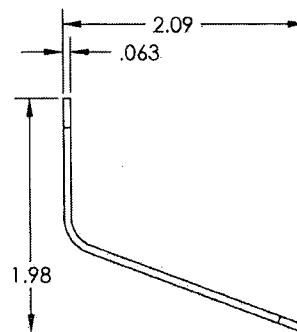
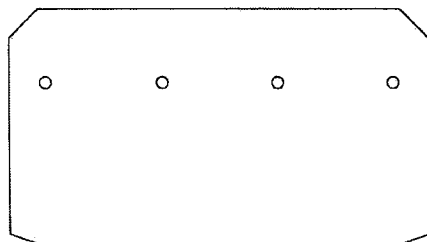
1704-20

	647.7919	SHIM	△	△
	647.7918	BRACKET	△	△
	647.7917	BRACKET	△	△
	647.7916	BRACKET	△	△
	647.7915	BRACKET	△	△
	647.7914	BRACKET	△	△
	647.7913	DOUBLER	△	△
	647.7912	CLIP	△	△
	647.7911	BRACKET	△	△
	647.7910	ANGLE BRACKET	△	△
F/N	PART #	DESCRIPTION	MAT'L	SPEC
QTY		PARTS LIST		
NEXT ASSY (S)		ORIGINAL DATE (MM.DD.YY)	APICAL INDUSTRIES	
647.7300		DRAWN BY E. ANDERSSON	2608 TEMPLE HEIGHTS DR.	
		CHECKED BY P. BRAYO	OCEANSIDE, CA. 92056-3512 (760)724-5300	
		APPROVAL (Signature)	SHEET METAL	
		CONTRACT NO.		
		UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ± .01 3 PLACE DECIMALS ± .005 ANGLES ± .5°	SHEET CODE B 07M26	DWG. NO. 647.7900
			SCALE NONE	REV. N/C
				SHEET 1 OF 9

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FLAT PATTERN

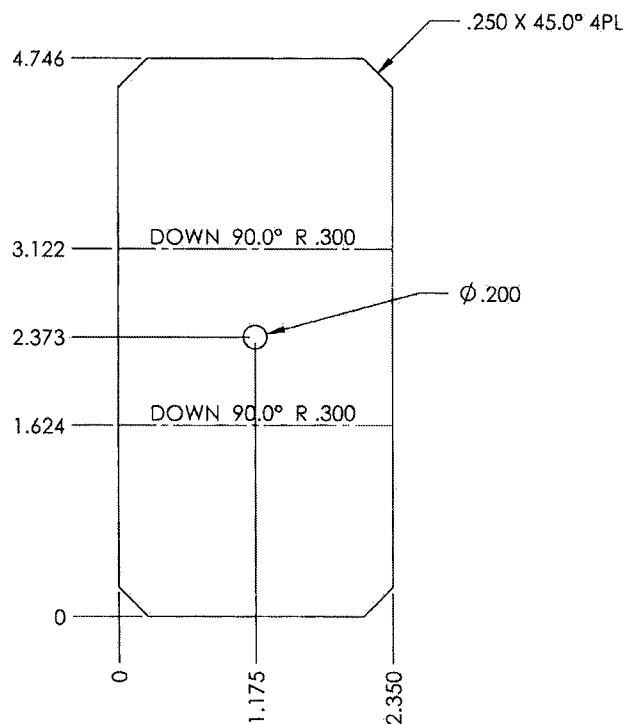
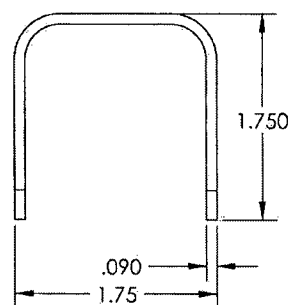


647.7910

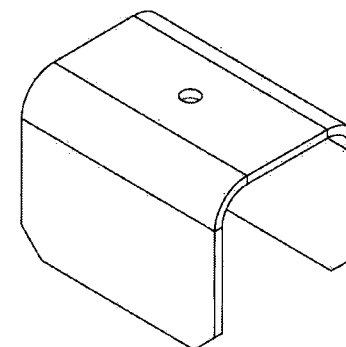
ORIGINAL DATE JANUARY 11, 1988		APICAL INDUSTRIES 2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760)724-5300	
DRAWN BY F. ANDERSON P. BRAVO			
DRAWING APPROVAL P. BRAVO			
CONTRACT NO.		SHEET METAL	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 1 PLACE DECIMALS ± .01 2 PLACE DECIMALS ± .005 ANGLES ± .5°			
SIZE	CAGE CODE 07M16	QTY. NO. 647.7900	REV. N/C
SCALE: NONE		SHEET 2 OF 9	

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REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED



FLAT PATTERN

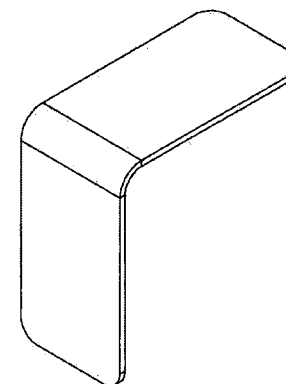
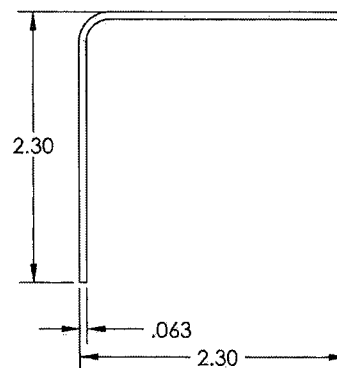
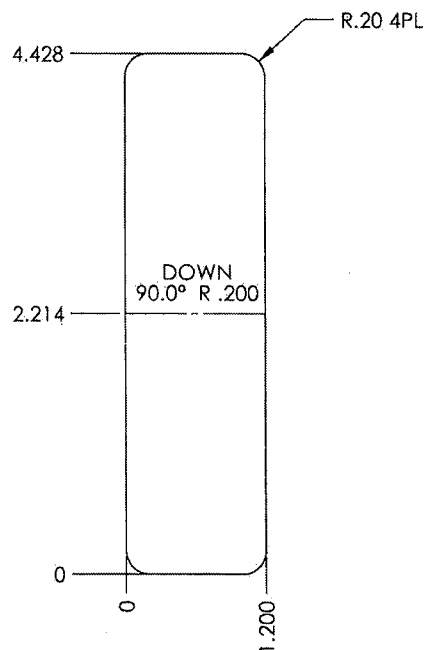


647.7911

ORIGINAL DATE 11/28/08	APICAL INDUSTRIES 2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760)724-5300			
DRAWN BY E. ANDERSSON				
CHECKED BY P. BRAVO				
DRAWING APPROVAL P. BRAVO				
11/28/08	SHEET METAL			
CONTRACT NO.				
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ±.01 3 PLACE DECIMALS ±.003 ANGLES ±.5°	SHEET B	CAGE CODE 07M16	DWG. NO. 647.7900	REV N/C
	SCALE NONE			SHEET 3 OF 9

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APICAL INDUSTRIES. ANY REPRODUCTION IN PART OR WHOLE WITHOUT
THE WRITTEN PERMISSION OF APICAL INDUSTRIES IS PROHIBITED.

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED

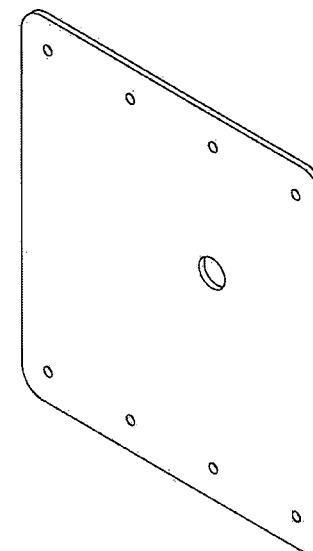
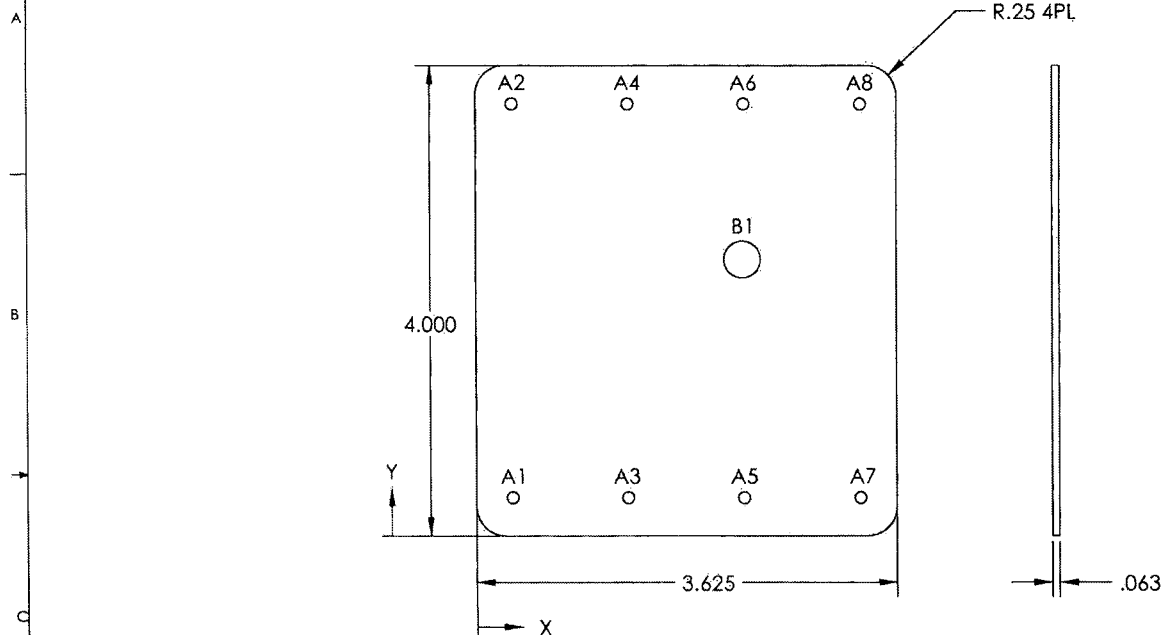


647.7912

ORIGINAL DATE 10/24/18 11:23 AM		APICAL INDUSTRIES	
DRAWN BY E. ANDERSON P. BRAVO		2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760)724-5300	
DRAWING APPROVAL P. BRAVO 11/23/18		SHEET METAL	
CONTRACT NO.		REV. N/C	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ±.01 3 PLACE DECIMALS ±.005 ANGLES ±.5°		SIZE B	QTY 647.7900
SCALE NONE		SHEET 4 OF 9	

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THE WRITTEN PERMISSION OF APICAL INDUSTRIES IS PROHIBITED.

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED



647.7913

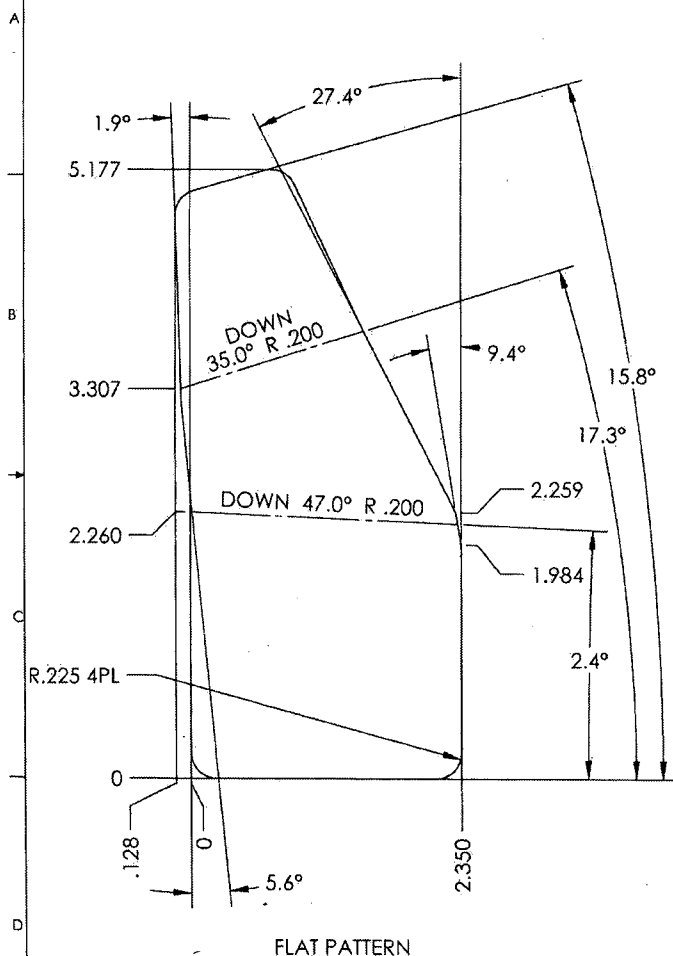
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A3	1.313±.002	.325±.002	Ø.100
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A5	2.313±.002	.325±.002	Ø.100
A6	2.313±.002	3.675±.002	Ø.100
A7	3.313±.002	.325±.002	Ø.100
A8	3.313±.002	3.675±.002	Ø.100
B1	2.300±.002	2.350±.002	Ø.313

ORIGINAL DATE
1/20/09 11:23 AM
DRAWN BY
E. ANDERSON P. BRAVO
CHECKED BY
P. BRAVO
DATE
11/22/09
CONTRACT NO.
UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
TOLERANCES ARE:
2 PLACE DECIMALS ±.01
3 PLACE DECIMALS ±.003
ANGLES ±.5°

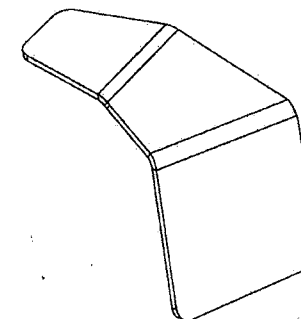
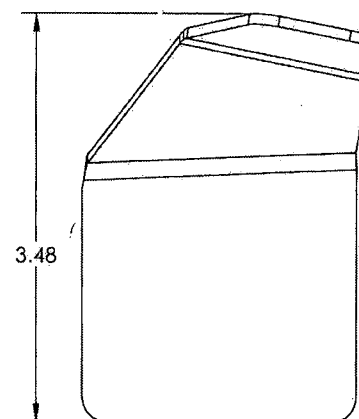
APICAL INDUSTRIES
2608 TEMPLE HEIGHTS DR.
OCEANSIDE, CA. 92056-3512 (760)724-5300
SHEET METAL
SHEET CODE
B 07M16
DWG. NO.
647.7900
REV
N/C
SCALE: NONE
SHEET 5 OF 9

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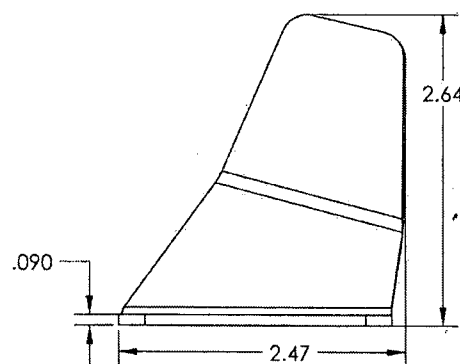
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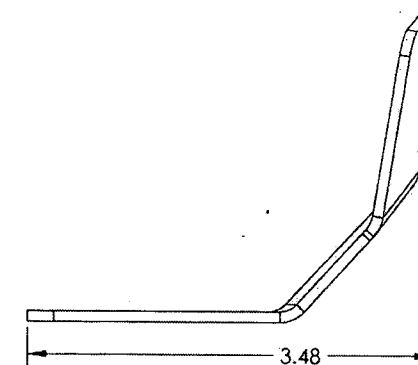
FLAT PATTERN



647.7914
647.7915 OPPOSITE



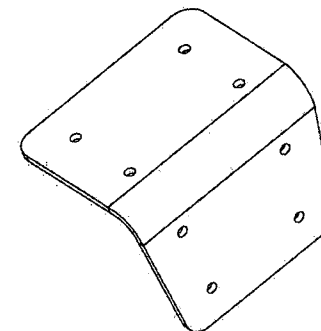
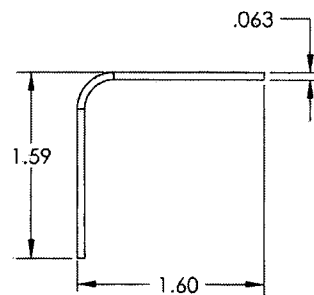
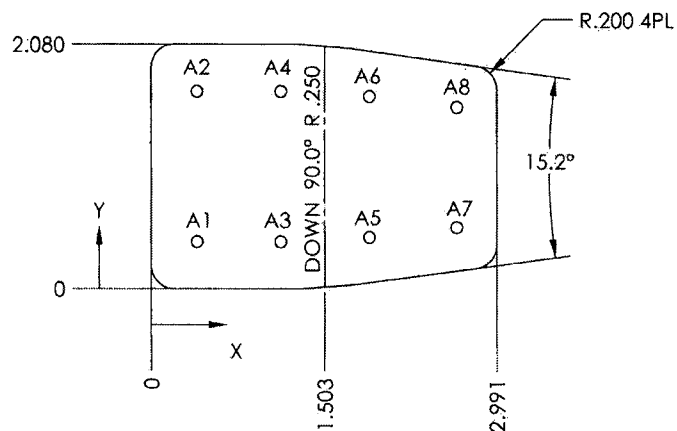
647.7914 SHOWN
647.7915 OPPOSITE



ORIGINAL DATE: 11-28-88 (MCD-147) [REVISOR] DRAWN BY: E. ANDERSON P. BRAVO DRAWING APPROVAL: P. BRAVO CHECKED BY: [REVISOR] CONTRACT NO.:		APICAL INDUSTRIES 2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760)724-5300	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 1 PLACE DECIMALS ± .01 2 PLACE DECIMALS ± .005 ANGLES ± .5°		SHEET METAL	
REV. B	DATE CODE 07M26	DWG. NO. 647.7900	REV. N/C
SCALE NONE		SHEET 6 OF 9	

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REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED



647.7916

FLAT PATTERN

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A4	1.125±.002	1.680±.002	Ø.100 THRU
A5	1.891±.002	.440±.002	Ø.100 THRU
A6	1.891±.002	1.640±.002	Ø.100 THRU
A7	2.646±.002	.528±.002	Ø.100 THRU
A8	2.646±.002	1.553±.002	Ø.100 THRU

ORIGINAL DATE
10/24/19
DRAWN BY
F. ANDERSON
DRAWINGS APPROVAL
P. BRAVO
CHECKED BY
J. S. S. S.
UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
TOLERANCES ARE:
2 PLACE DECIMALS ±.010
3 PLACE DECIMALS ±.005
ANGLES ±.5°

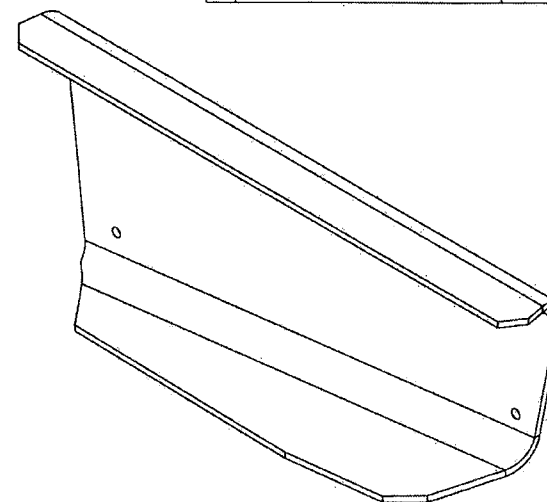
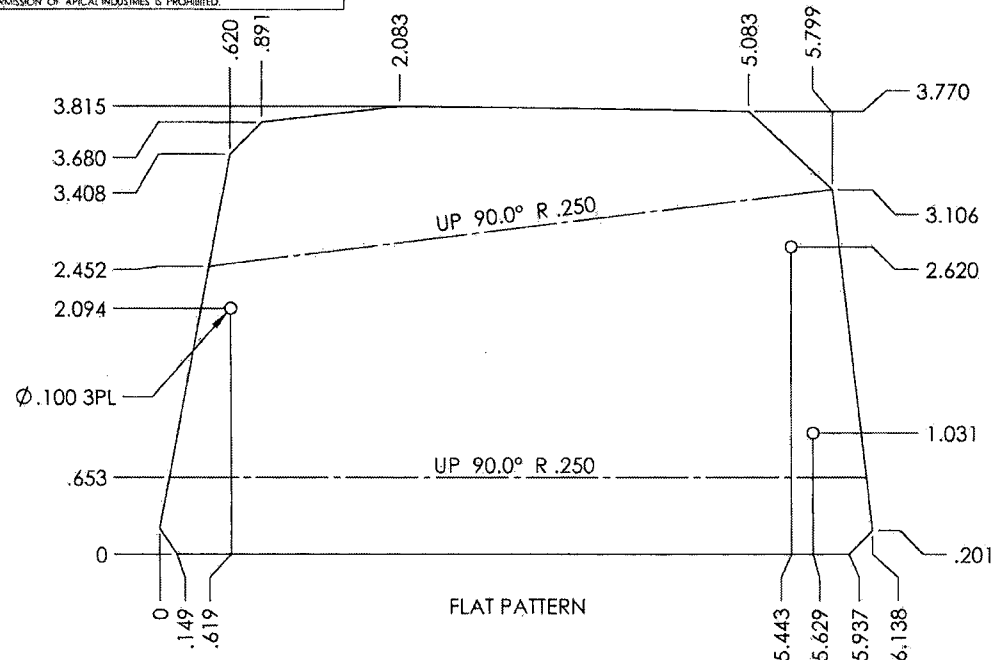
APICAL INDUSTRIES
2608 TEMPLE HEIGHTS DR.
OCEANSIDE, CA. 92056-3512 (760) 724-5300

SHEET METAL

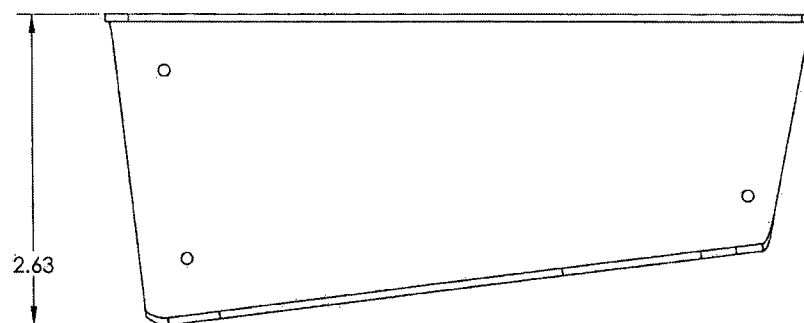
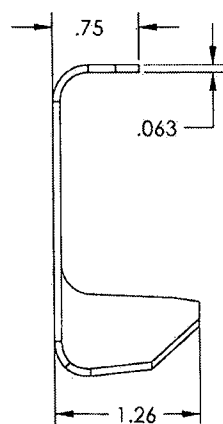
SIZE CAGE CODE DWG. NO. 647.7900 REV.
B 07/11/16 N/C
SCALE: NONE SHEET 7 OF 9

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REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED



647.7917
647.7918 OPPOSITE

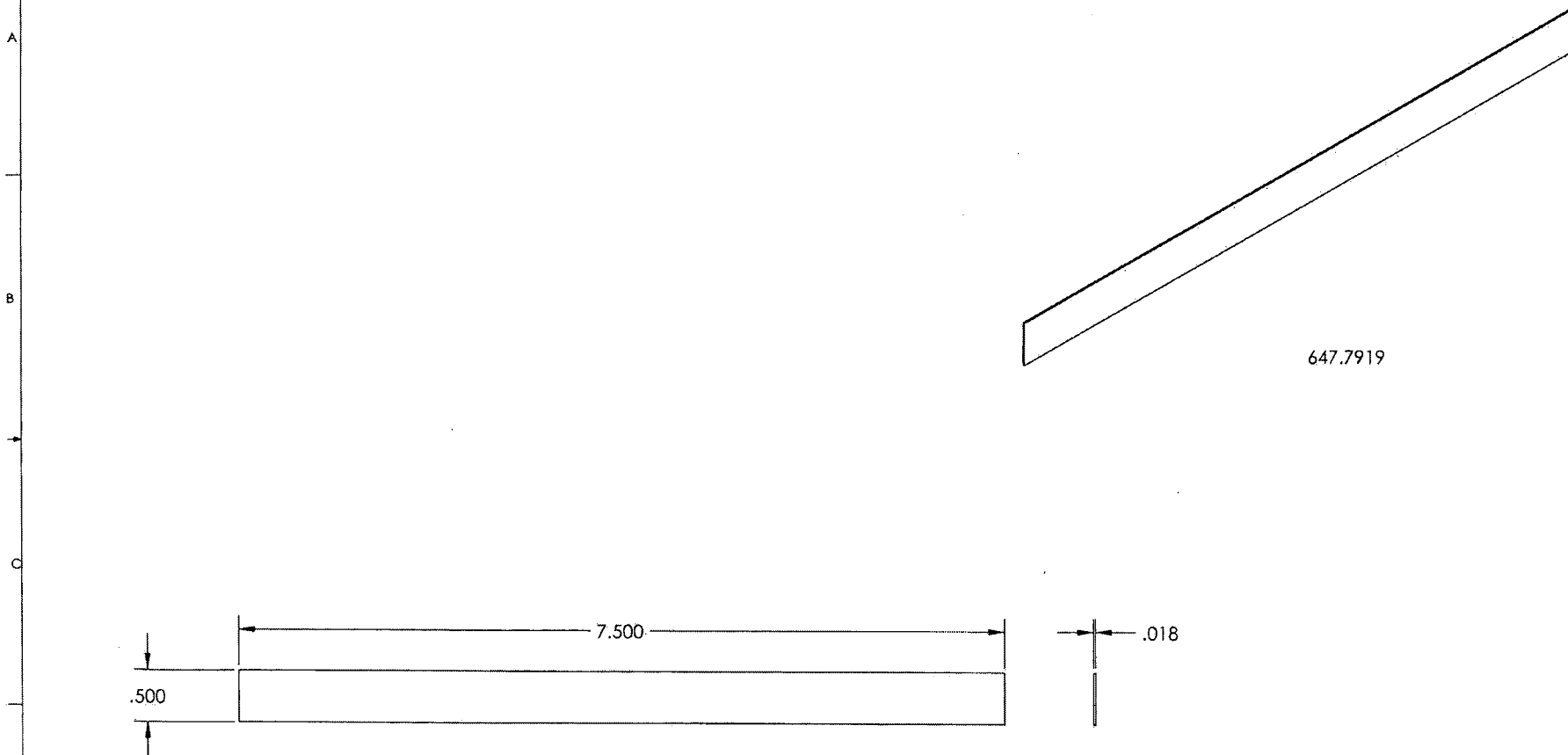


647.7917 SHOWN
647.7918 OPPOSITE

ORIGINAL DATE 11-23-09		APICAL INDUSTRIES	
DRAWN BY F. ANDERSON		2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760)724-5300	
CHECKED BY P. BRAY		SHEET METAL	
DRAWING APPROVAL P. BRAY		SIZE B	REV. N/C
CONTRACT NO.		DWG. NO. 647.7900	SCALE NONE
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ±.01 3 PLACE DECIMALS ±.005 ANGLES ±.5°		SHEET 8 OF 9	

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REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED



ORIGINAL DATE 11-22-89	APICAL INDUSTRIES 2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760)724-5300		
DRAWN BY I. ANDERSSON P. BRAVO			
DRAWING APPROVAL P. BRAVO			
CONTRACT NO.	SHEET METAL		
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ±.01 3 PLACE DECIMALS ±.005 ANGLES ±.5°	SIZE 8 07M36	DWG. NO. 647.7900	REV. N/C
	SCALE NONE	SHEET 9 OF 9	



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID **PO36583**

Purchase Order Date 6/6/2017

PO Print Date 6/12/2017

Page Number 4 of 5

Order From :

VC-ATG001

Ship To : DART AEROSPACE LTD

A.T.G. INDUSTRIES INC.
731 INDUSTRIELLE ROAD
ROCKLAND, ON K4K 1T2
CANADA

1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

Contact Name

Vendor Phone

613-446-4544

Buyer

Chantal Lavoie

Customer POID

Customer Tax #

10127-2607

Terms

Net 30

Currency

CAD

FOB

FCA - (Free Carrier)

Ship To Contact

Ship To Phone

Ship Via:

VENDOR'S TRUCK

Ship Acct:

7	159548	647.7815 BRACKET REV. A	6/16/2017	6.00	\$6.85	\$41.10
---	--------	----------------------------	-----------	------	--------	---------

Yes

6/16/2017

AS PER MPP-172 SECTION 2.1,
HARD ANODIZE COLOR BLACK, PER IAW MIL-A-8625 TYPE 3 CLASS 2
AS PER MPP-172 SECTION 4.2,
PRIME AS PER IAW MIL-PRF-23377 TYPE 1 CLASS N

Line Total: \$41.10

8	159893	647.7914 BRACKET REV. N/C	6/16/2017	11.00	\$8.70	\$95.70
---	--------	------------------------------	-----------	-------	--------	---------

Yes

6/16/2017

AS PER MPP-172 SECTION 2.1,
HARD ANODIZE COLOR BLACK, PER IAW MIL-A-8625 TYPE 3 CLASS 2
AS PER MPP-172 SECTION 4.2,
PRIME AS PER IAW MIL-PRF-23377 TYPE 1 CLASS N

Line Total: \$95.70

9	71401-45	ADMIN FEE	6/16/2017	1.00	\$200.00	\$200.00
---	----------	-----------	-----------	------	----------	----------

No

6/16/2017

PO Instructions: PRIMER IS SUPPLIED BY DART

Note:

6/12/2017



A.T.G. Industries Inc.
731 Industrielle Street
Rockland, ON K4K 1T2
Canada

Ph: (613) 446-4544

Fax: (613) 446-4556

Pack List

Number: 913395

Date: 16-Jun-17

To

Dart Aerospace Ltd
1270 Aberdeen St
Hawkesbury, ON K6A 1K7

Ship To

Chantal Lavoie
Dart Aerospace Ltd
1270 Aberdeen St
Hawkesbury, ON K6A 1K7

Ph: 613 632-9577

Fax: 613 632-1053

Ph: 613 632-9577

Fax: 613 632-1053

Terms		Ship Via	
Quantity	Description		
	Please reference this document's Pack List number on all correspondences regarding this shipment. If you have any questions, please contact us.		
10 ea	Part: 647.1710 Plate Hard Black Anodize per MIL-A-8625F, Type III, Class 2, .0005-.0045" (.5 - 4.5mils). Prime per MIL-PRF-23377, Type I, Class N (Customer Supplied), .0006-.0009" (.6 - .9 mils). Job: 21186	Rev: E PO: PO36583	Line: 2
8 ea	Part: 647.4111 Doubler Hard Black Anodize per MIL-A-8625F, Type III, Class 2, .0005-.0045" (.5 - 4.5mils). Prime per MIL-PRF-23377, Type I, Class N (Customer Supplied), .0006-.0009" (.6 - .9 mils). Job: 21187	Rev: N/C PO: PO36583	Line: 3
1 ea	Part: 647.7611 Deflector Hard Black Anodize per MIL-A-8625F, Type III, Class 2, .0005-.0045" (.5 - 4.5mils). Prime per MIL-PRF-23377, Type I, Class N (Customer Supplied), .0001-.0002" (.1 - .2 mils) per drawing. Job: 21188	Rev: N/C PO: PO36583	Line: 4
11 ea	Part: 647.7914 Bracket Hard Black Anodize per MIL-A-8625F, Type III, Class 2, .0005-.0045" (.5 - 4.5mils). Prime per MIL-PRF-23377, Type I, Class N (Customer Supplied), .0006-.0009" (.6 - .9 mils). Job: 21192	Rev: N/C PO: PO36583	Line: 8
1 ea	Part: ADMINISTRATION FEE Administrative Fee Job: 21193	Rev: N/A PO: PO36583	Line: 9-10
Made in Canada.			



A.T.G. Industries Inc.
731 Industrielle Street
Rockland, ON K4K 1T2
Canada

Ph: (613) 446-4544

Fax: (613) 446-4556

Pack List

Number: 913395

Date: 16-Jun-17

To

Dart Aerospace Ltd
1270 Aberdeen St
Hawkesbury, ON K6A 1K7

Ship To

Chantal Lavoie
Dart Aerospace Ltd
1270 Aberdeen St
Hawkesbury, ON K6A 1K7

Ph: 613 632-9577

Fax: 613 632-1053

Ph: 613 632-9577

Fax: 613 632-1053

Terms	Ship Via				
<table border="1"><thead><tr><th>Quantity</th><th>Description</th></tr></thead><tbody><tr><td></td><td> CERTIFICATE OF CONFORMANCE A.T.G Industries Inc. certifies that all items in this shipment conform to the requirements. Date: <u>15/06/2017</u> Certified Signature: <u>[Signature]</u> Receiver Signature: <u>2017-615</u> A.T.G Industries Inc. is AS9100 Registered and Nadcap Chemical Processing Accredited. Note: This Packing Slip may contain parts that have been PLATED. Items that are plated may be subject to natural tarnishing and it is suggested that they be inspected within 24 hours of receipt. </td></tr></tbody></table>		Quantity	Description		CERTIFICATE OF CONFORMANCE A.T.G Industries Inc. certifies that all items in this shipment conform to the requirements. Date: <u>15/06/2017</u> Certified Signature: <u>[Signature]</u> Receiver Signature: <u>2017-615</u> A.T.G Industries Inc. is AS9100 Registered and Nadcap Chemical Processing Accredited. Note: This Packing Slip may contain parts that have been PLATED. Items that are plated may be subject to natural tarnishing and it is suggested that they be inspected within 24 hours of receipt.
Quantity	Description				
	CERTIFICATE OF CONFORMANCE A.T.G Industries Inc. certifies that all items in this shipment conform to the requirements. Date: <u>15/06/2017</u> Certified Signature: <u>[Signature]</u> Receiver Signature: <u>2017-615</u> A.T.G Industries Inc. is AS9100 Registered and Nadcap Chemical Processing Accredited. Note: This Packing Slip may contain parts that have been PLATED. Items that are plated may be subject to natural tarnishing and it is suggested that they be inspected within 24 hours of receipt.				

Made in Canada.